

# Notice of Allowability

Application No.

10/659,724

Examiner

David D. Le

Applicant(s)

MA ET AL.

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed on 10 September 2003.
2. ☒ The allowed claim(s) is/are 1-10, 14 and 16-19.
3. ☒ The drawings filed on 10 September 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☒ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

1. This is the first Office action on the merits of Application No. 10/659,724, filed on 10 September 2003. Claims 1-11 and 13-20 are pending.

### **Documents**

2. The following documents have been received and filed as part of the patent application:
  - Declaration and Power of Attorney, received on 12/17/03

### ***Renumbering Claims***

3. It has been noted that there is no claim number **12** in the present application. Therefore, the numbering of claims is not in accordance with 37 CFR 1.126, which requires the claims must be numbered consecutively. Accordingly, the pending claims 13-20 have been renumbered as follows: Misnumbered claim 13 been renumbered as 12; Misnumbered claim 14 been renumbered as 13; Misnumbered claim 15 been renumbered as 14; Misnumbered claim 16 been renumbered as 15; Misnumbered claim 17 been renumbered as 16; Misnumbered claim 18 been renumbered as 17; Misnumbered claim 19 been renumbered as 18; and Misnumbered claim 20 been renumbered as 19.

### ***Priority***

4. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in China on 12 September 2002. It is noted, however, that applicant has not filed a certified copy of the **02253906.9** application as required by 35 U.S.C. 119(b).

### EXAMINER'S AMENDMENT

5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's attorney, Brett A. North, on 29 September 2004.

The application has been amended as follows:

- Claim 1, line 7, replace "a differential mechanism" with --the differential mechanism--.
- Claim 11 has been cancelled.
- Claim 12 (originally filed claim 13) has been cancelled.
- Claim 13 (originally filed claim 14) has been cancelled.
- Claim 15 (originally filed claim 16) has been cancelled.

### *Allowable Subject Matter*

6. Claims 1-10, 14, 16-19 are allowed.
7. The following is an examiner's statement of reasons for allowance:

#### Claim 1:

The prior art of record fails to show or render obvious an arrangement of a transmission mechanism comprising a combination of a housing, a differential mechanism, a driving power input shaft, a first dual tandem gear, a first sliding dual

tandem gear, a front left wheel output shaft, a rear right wheel output shaft, a second gear, a second dual tandem gear, a third gear, a front right wheel output shaft, a first connecting shaft, a fourth gear, a rear left wheel output shaft, a second connecting shaft, and a fifth gear; specifically, wherein the differential mechanism includes left and right ring gears, the front left wheel output shaft connected to the left side bevel gear, and the right wheel output shaft connected to the right side bevel gear, as recited in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ribeiro (U. S. Patent No. 3,753,376) teaches a transfer and differential reduction box for motor vehicles as shown in Fig. 2.
- C. J. Bock (U. S. Patent No. 2,158,320) teaches a power-divided transmission as shown in Fig. 2.
- C. F. Rauen (U. S. Patent No. 2,072,057) teaches the use of tandem gears in a transmission as shown in Figs. 1 and 4.

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- Ma et al. (U. S. Patent Application Publication No. US 2004/0092354 A1) teaches a transmission mechanism for driving four wheels as shown in Fig. 1.
- European Patent Application No. 0 444 497 A1 teaches a transmission as shown in Fig. 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 703-305-3690. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
ddl

  
**CHARLES A. MARMOR**  
SUPERVISORY PATENT EXAMINER  
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